

Soybean Processing: 2002

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2002 Economic Census

Manufacturing

Industry Series



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Economics and Statistics Administration
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Table 1. Historical Statistics for the Industry: 2002 and Earlier Years

[Data based on the 2002 Economic Census and the 2002 Annual Survey of Manufactures (ASM). For information on confidentiality protection, sampling error, nonsampling error, and explanation of terms, see note at end of table. For meaning of abbreviations and symbols, see introductory text]

Industry and year ¹	Com- panies ²	All estab- lish- ments ³	All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expendi- tures (\$1,000)
			Number ⁴	Payroll (\$1,000)	Number ⁴	Hours (1,000)	Wages (\$1,000)				
311222, Soybean processing	61	117	7 314	290 672	5 245	11 283	181 396	3 042 779	9 846 649	12 783 547	189 131
2002..	N	N	6 630	266 295	4 694	10 325	162 295	2 253 091	8 829 849	11 030 540	163 603
2001..	N	N	6 542	254 215	4 617	10 274	156 449	1 655 686	8 545 930	10 113 110	142 975
2000..	N	N	6 476	247 068	4 520	10 091	151 203	1 384 121	9 541 841	11 014 419	389 287
1999..	N	N	6 388	238 814	4 486	10 017	142 989	1 402 993	11 250 793	12 696 171	299 419
1998..	N	N	6 601	229 727	4 560	10 207	140 346	1 623 082	12 449 318	14 036 271	188 422
1997..	43	92									

¹Statistics presented for years ending in 2 and 7 are census data. Interim census years are derived in a representative sample of manufacturing establishments canvassed in the Annual Survey of Manufactures (ASM).

²For the census, a company is defined as a business organization consisting of one establishment or more under common ownership or control.

³Includes establishments with payroll at any time during the year.

⁴Number of employees figures represent average number of production workers for pay period that includes the 12th of March, May, August, and November plus other employees for payroll period that includes the 12th of March.

Note: The data in this table are based on the 2002 Economic Census and the 2002 Annual Survey of Manufactures (ASM). To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain sampling errors and nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.

Table 2. Industry Statistics for Selected States: 2002

[States that are a disclosure or with less than 100 employees are not shown. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, explanation of terms, and geographical definitions, see note at end of table. For information on geographic areas followed by *, see Appendix D. For meaning of abbreviations and symbols, see introductory text]

Industry and geographic area	E ¹	All establishments ²		All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expenditures (\$1,000)
		Total	With 20 employees or more	Number ³	Payroll (\$1,000)	Number ³	Hours (1,000)	Wages (\$1,000)				
311222, Soybean processing												
United States.....	—	117	75	7 314	290 672	5 245	11 283	181 396	3 042 779	9 846 649	12 783 547	189 131
California	8	6	1	172	4 082	107	232	2 385	7 664	49 382	57 171	2 421
Illinois	—	22	12	2 222	88 614	1 624	3 563	57 706	537 327	1 712 636	2 261 386	54 483
Kansas	—	6	4	245	10 509	134	295	5 448	33 961	445 764	477 341	3 491
Missouri	—	5	4	305	12 839	232	499	8 686	217 075	426 604	643 363	15 191
Nebraska	—	3	2	137	4 090	97	178	2 503	28 142	303 850	332 191	2 331

¹Some payroll and sales data for small single-establishment companies with up to 20 employees (cutoff varied by industry) were obtained from administrative records of other government agencies rather than from census report forms. These data were then used in conjunction with industry averages to estimate statistics for these small establishments. This technique was also used for a small number of other establishments whose reports were not received at the time data were tabulated. The following symbols are shown where estimated data account for 10 percent or more of the figures shown: 1–10 to 19 percent; 2–20 to 29 percent; 3–30 to 39 percent; 4–40 to 49 percent; 5–50 to 59 percent; 6–60 to 69 percent; 7–70 to 79 percent; 8–80 to 89 percent; 9–90 percent or more.

²Includes establishments with payroll at any time during the year.

³Number of employees figures represent average number of production workers for pay period that includes the 12th of March, May, August, and November plus other employees for payroll period that includes the 12th of March.

Note: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C. For geographical definitions, see Appendix D.

Table 3. Detailed Statistics by Industry: 2002

[Data based on the 2002 Economic Census and the 2002 Annual Survey of Manufactures (ASM). For information on confidentiality protection, sampling error, nonsampling error, and explanation of terms, see note 2 at end of table. For meaning of abbreviations and symbols, see introductory text]

Item	Value
311222, Soybean processing	
Companies ¹	number.. 61
All establishments ²	number.. 117
Establishments with 1 to 19 employees.....	number.. 42
Establishments with 20 to 99 employees.....	number.. 54
Establishments with 100 employees or more.....	number.. 21
All employees ³	number.. 7 314
Total compensation.....	\$1,000.. 360 429
Annual payroll.....	\$1,000.. 290 672
Total fringe benefits.....	\$1,000.. 69 757
Production workers, average for year.....	number.. 5 245
Production workers on March 12.....	number.. 5 156
Production workers on May 12.....	number.. 5 212
Production workers on August 12.....	number.. 5 285
Production workers on November 12.....	number.. 5 311
Production worker hours.....	1,000.. 11 283
Production worker wages.....	\$1,000.. 181 396
Total cost of materials.....	\$1,000.. 9 846 649
Materials, parts, containers, packaging, etc., used.....	\$1,000.. 9 168 887
Resales.....	\$1,000.. 379 985
Purchased fuels.....	\$1,000.. 192 218
Purchased electricity.....	\$1,000.. 97 063
Contract work.....	\$1,000.. 8 496
Quantity of electricity purchased for heat and power.....	1,000 kWh.. 2 426 551
Quantity of electricity generated less sold for heat and power.....	1,000 kWh.. 167 802
Total value of shipments.....	\$1,000.. 12 783 547
Primary products value of shipments.....	\$1,000.. 10 301 588
Secondary products value of shipments.....	\$1,000.. 2 083 579
Total miscellaneous receipts.....	\$1,000.. 398 380
Value of resales.....	\$1,000.. 397 944
Contract receipts.....	\$1,000.. —
Other miscellaneous receipts.....	\$1,000.. 436
Primary products specialization ratio.....	percent.. 83
Value of primary products shipments made in all industries.....	\$1,000.. 10 837 002
Value of primary products shipments made in this industry.....	\$1,000.. 10 301 588
Value of primary products shipments made in other industries.....	\$1,000.. 535 414
Coverage ratio.....	percent.. 95
Value added.....	\$1,000.. 3 042 779
Total inventories, beginning of year.....	\$1,000.. 763 224
Finished goods inventories.....	\$1,000.. 429 260
Work-in-process inventories.....	\$1,000.. 43 929
Materials and supplies inventories.....	\$1,000.. 290 035
Total inventories, end of year.....	\$1,000.. 981 800
Finished goods inventories.....	\$1,000.. 479 408
Work-in-process inventories.....	\$1,000.. 99 662
Materials and supplies inventories.....	\$1,000.. 402 730
Gross value of depreciable assets (acquisition costs) at beginning of year.....	\$1,000.. 3 761 426
Total capital expenditures (new and used).....	\$1,000.. 189 131
Buildings and other structures (new and used).....	\$1,000.. 25 040
Machinery and equipment (new and used).....	\$1,000.. 164 091
Automobiles, trucks, etc., for highway use.....	\$1,000.. 2 382
Computers and peripheral data processing equipment.....	\$1,000.. 3 011
All other expenditures for machinery and equipment.....	\$1,000.. 158 698
Total retirements.....	\$1,000.. 137 815
Gross value of depreciable assets at end of year.....	\$1,000.. 3 812 742
Depreciation charges during year.....	\$1,000.. 203 133
Total rental payments.....	\$1,000.. 40 041
Buildings and other structures.....	\$1,000.. 11 393
Machinery and equipment.....	\$1,000.. 28 648
Total other expenses ⁴	\$1,000.. 216 411
Response coverage ratio ⁵	percent.. 91
Repair and maintenance services of buildings and/or machinery ⁴	\$1,000.. 72 020
Communications services ⁴	\$1,000.. 3 083
Legal services ⁴	\$1,000.. 1 314
Accounting, auditing, and bookkeeping services ⁴	\$1,000.. 823
Advertising and promotional services ⁴	\$1,000.. 2 914
Expensed computer hardware and supplies and purchased computer services ⁴	\$1,000.. 1 342
Refuse removal (including hazardous waste) services ⁴	\$1,000.. 15 177
Management consulting and administrative services ⁴	\$1,000.. 1 417
Taxes and license fees ⁴	\$1,000.. 13 909
All other expenses ⁴	\$1,000.. 104 412

¹For the census, a company is defined as a business organization consisting of one establishment or more under common ownership or control.

²Includes establishments with payroll at any time during the year.

³Number of employees figures represent average number of production workers for pay period that includes the 12th of March, May, August, and November plus other employees for payroll period that includes the 12th of March.

⁴Based on Annual Survey of Manufactures (ASM) sample data.

⁵A response coverage ratio is derived for this item by calculating the ratio of the weighted employment (establishment data multiplied by sample weight) for those Annual Survey of Manufactures (ASM) establishments that reported to the weighted total employment for all ASM establishments classified in this industry.

Note 1: The amounts shown for other expenses reflect only those services that establishments purchase from other companies.

Note 2: The data in this table are based on the 2002 Economic Census and the 2002 Annual Survey of Manufactures (ASM). To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain sampling errors and nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.

Table 4. Industry Statistics by Employment Size: 2002

[Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, and explanation of terms, see note at end of table. For meaning of abbreviations and symbols, see introductory text]

Employment size class	E ¹	All establishments ²	All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Number ³	Payroll (\$1,000)	Number ³	Hours (1,000)	Wages (\$1,000)				
311222. Soybean processing											
All establishments	—	117	7 314	290 672	5 245	11 283	181 396	3 042 779	9 846 649	12 783 547	189 131
Establishments with—											
1 to 4 employees	9	20	43	1 742	31	62	1 042	5 722	50 821	56 565	2 171
5 to 9 employees	9	8	59	2 727	38	73	1 218	8 943	49 637	59 043	1 734
10 to 19 employees	5	14	181	6 170	129	279	3 960	8 495	173 230	180 206	5 593
20 to 49 employees	—	30	1 113	43 387	795	1 679	27 220	558 160	2 247 559	2 794 217	18 069
50 to 99 employees	—	24	1 596	62 094	1 110	2 276	36 066	1 084 974	3 541 587	4 614 803	53 249
100 to 249 employees	—	16	2 601	103 071	1 853	4 034	63 562	959 339	2 623 437	3 556 397	68 126
250 to 499 employees	—	5	1 721	71 481	1 289	2 880	48 328	417 146	1 160 378	1 522 316	40 189
500 to 999 employees	—	—	—	—	—	—	—	—	—	—	—
1,000 to 2,499 employees	—	—	—	—	—	—	—	—	—	—	—
2,500 employees or more	—	—	—	—	—	—	—	—	—	—	—
Administrative records ⁴	9	23	157	6 225	113	250	4 013	21 757	200 276	222 033	8 026

¹Some payroll and sales data for small single-establishment companies with up to 20 employees (cutoff varied by industry) were obtained from administrative records of other government agencies rather than from census report forms. These data were then used in conjunction with industry averages to estimate statistics for these small establishments. This technique was also used for a small number of other establishments whose reports were not received at the time data were tabulated. The following symbols are shown where estimated data account for 10 percent or more of the figures shown: 1–10 to 19 percent; 2–20 to 29 percent; 3–30 to 39 percent; 4–40 to 49 percent; 5–50 to 59 percent; 6–60 to 69 percent; 7–70 to 79 percent; 8–80 to 89 percent; 9–90 percent or more.

²Includes establishments with payroll at any time during the year.

³Number of employees figures represent average number of production workers for pay period that includes the 12th of March, May, August, and November plus other employees for payroll period that includes the 12th of March.

⁴Some payroll and sales data for small single-establishment companies with up to 20 employees (cutoff varied by industry) were obtained from administrative records of other government agencies rather than from census report forms. These data were then used in conjunction with industry averages to estimate statistics for these small establishments. Data are also included in respective size classes shown.

Note: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.

Table 5. Industry Statistics by Primary Product Class Specialization: 2002

[Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, and explanation of terms, see note at end of table. For meaning of abbreviations and symbols, see introductory text]

Industry or product class code	Industry or primary product class	All establishments ¹	All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Number ²	Payroll (\$1,000)	Number ²	Hours (1,000)	Wages (\$1,000)				
311222	Soybean processing	117	7 314	290 672	5 245	11 283	181 396	3 042 779	9 846 649	12 783 547	189 131
3112221	Soybean oil	9	809	30 579	617	1 312	19 918	279 123	715 258	990 904	22 962
3112224	Soybean cake, meal, and other byproducts	76	6 163	248 964	4 399	9 498	155 036	2 759 407	8 969 894	11 628 007	154 704

¹Includes establishments with payroll at any time during the year.

²Number of employees figures represent average number of production workers for pay period that includes the 12th of March, May, August, and November plus other employees for payroll period that includes the 12th of March.

Note: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.

Table 6a. Products Statistics: 2002 and 1997

[Includes quantity and value of products of this industry produced by (1) establishments classified in this industry (primary) and (2) establishments classified in other industries (secondary). Transfers of products of this industry from one establishment of a company to another establishment of the same company (interplant transfers) are also included. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, and explanation of terms, see note 2 at end of table. For meaning of abbreviations and symbols, see introductory text]

Product code	Product	Number of companies with shipments of \$100,000 or more	Quantity of production for all purposes	Product shipments	
				Quantity	Value (\$1,000)
311222	Soybean processing	2002.. N 1997.. N	X X	X X	10 837 002 12 038 811
3112221	Soybean oil	2002.. N 1997.. N	X X	X X	2 745 728 3 161 878
31122211	Crude soybean oil, degummed	2002.. N 1997.. N	X X	X X	1 657 642 2 152 186
3112221111	Crude soybean oil, degummed ¹	2002.. 15 1997.. 10	S S	S S	1 657 642 2 152 186
31122212	Soybean oil, all other types	2002.. N 1997.. N	X X	X X	1 088 086 1 009 692
3112221221	Crude soybean oil, not degummed ²	2002.. 6 1997.. 8	S S	S S	803 143 748 557
3112221231	Soybean oil, once-refined (after alkali or caustic wash but before deodorizing or use in end products) ²	2002.. 8 1997.. 9	D S	D S	D S
3112221241	Soybean oil processed for inedible purposes (acid refined, etc.)	2002.. 2 1997.. 5	X X	D X	D 8 433
3112221Y	Soybean oil, nsk	2002.. N 1997.. N	X X	X X	— N
3112221YVW	Soybean oil, nsk	2002.. N 1997.. N	X X	X X	— N
3112224	Soybean cake, meal, and other byproducts	2002.. N 1997.. N	X X	X X	7 951 873 8 824 896
31122241	Soybean cake and meal	2002.. N 1997.. N	X X	X X	7 236 684 8 193 437
3112224111	Soybean cake and meal ¹	2002.. 20 1997.. 20	S S	S S	7 236 684 8 193 437
31122242	Other soybean products, including isolates and concentrates	2002.. N 1997.. N	X X	X X	712 476 631 459
3112224221	Soy flour and grits	2002.. 9 1997.. 4	X X	S D	133 471 D
3112224231	Soybean lecithin ¹	2002.. 8 1997.. 9	S D	S D	73 610 D
3112224241	Soybean millfeed (hullmeal) ¹	2002.. 9 1997.. 15	S S	S S	191 210 166 325
3112224261	Other soybean products, including isolates and concentrates	2002.. 19 1997.. 11	X X	P407.8 427.7	314 185 261 520
3112224Y	Soybean cake, meal, and other byproducts, nsk	2002.. N 1997.. N	X X	X X	2 713 N
3112224YVW	Soybean cake, meal, and other byproducts, nsk	2002.. N 1997.. N	X X	X X	2 713 N
311222W	Soybean processing, nsk, total	2002.. N 1997.. N	X X	X X	139 401 52 037
311222WY	Soybean processing, nsk, total	2002.. N 1997.. N	X X	X X	139 401 52 037
311222WYWW	Soybean processing, nsk, for nonadministrative-record establishments	2002.. N 1997.. N	X X	X X	15 766 180
311222WYWY	Soybean processing, nsk, for administrative-record establishments	2002.. N 1997.. N	X X	X X	123 635 51 857

¹For additional detail, see Current Industrial Report M311J, Fats and Oils: Oilseed Crushings.

²For additional detail, see Current Industrial Report M311K, Fats and Oils: Production, Consumption, and Stocks.

Note 1: For some establishments, data have been estimated from central unit values that are based on quantity-value relationships of reported data. The following symbols are used when percentage of each quantity figure estimated in this manner equals or exceeds 10 percent of published figure: p-10 to 19 percent estimated; q-20 to 29 percent estimated. If 30 percent or more is estimated, figure is replaced by S.

Note 2: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.

Table 6b. Product Class Shipments for Selected States: 2002 and 1997

[Product classes covered are those that are economically significant and whose production is geographically dispersed, provided dispersion is not approximated by data in Table 2. Also, product classes are not shown if they are miscellaneous or "not specified by kind" classes. Statistics for some states are withheld because they are either less than \$2 million in product class shipments or they disclose data for individual companies in 2002. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, explanation of terms, and geographic definitions, see note at end of table. For information on geographic areas followed by *, see Appendix D. For meaning of abbreviations and symbols, see introductory text]

NAICS product class code	Product class and geographic area	Value of product shipments (\$1,000)
3112221	Soybean oil	
	United States 2002..	2 745 728
	..... 1997..	3 161 878
	Illinois 2002..	371 436
	..... 1997..	661 766
3112224	Soybean cake, meal, and other byproducts	
	United States 2002..	7 951 873
	..... 1997..	8 824 896
	California 2002..	38 914
	..... 1997..	7 516
	Illinois 2002..	1 340 934
	..... 1997..	1 495 751
	Kansas 2002..	233 213
	..... 1997..	344 505
	Missouri 2002..	568 607
	..... 1997..	473 312
	Nebraska 2002..	171 524
	..... 1997..	N

Note: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C. For geographical definitions, see Appendix D.

Table 7. Materials Consumed by Kind: 2002 and 1997

[Includes quantity and cost of materials consumed or put into production by establishments classified only in this industry. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, and explanation of terms, see note 2 at end of table. For meaning of abbreviations and symbols, see introductory text]

Material code	Material consumed	Quantity	Delivered cost (\$1,000)
311222	Soybean processing		
00900001	Total materials .....2002..	X	9 168 887
	.....1997..	X	11 262 847
11115003	Corn mil bushels .....2002..	D	D
	.....1997..	N	N
11119915	Sorghum mil lb .....2002..	D	D
	.....1997..	N	N
11111000	Soybean seeds, nuts, and beans 1,000 s tons .....2002..	42 459.7	7 086 505
	.....1997..	36 797.5	9 380 234
11192003	Cottonseed seeds, nuts, and beans 1,000 s tons .....2002..	D	D
	.....1997..	N	N
11100007	Other seeds, nuts, and beans (excluding cottonseed, sunflower, soybean, flaxseed, and peanuts) 1,000 s tons .....2002..	D	D
	.....1997..	N	N
31122301	Cottonseed oil, crude mil lb .....2002..	D	D
	.....1997..	N	N
31122303	Cottonseed oil, once-refined mil lb .....2002..	D	D
	.....1997..	N	N
31122001	Cottonseed oil, fully-refined mil lb .....2002..	D	D
	.....1997..	N	N
31122201	Soybean oil, crude mil lb .....2002..	3 492.2	636 690
	.....1997..	1 443.7	339 041
31122203	Soybean oil, once-refined mil lb .....2002..	D	D
	.....1997..	N	N
31122003	Soybean oil, fully-refined mil lb .....2002..	D	D
	.....1997..	N	N
31122123	Corn oil, crude mil lb .....2002..	D	D
	.....1997..	N	N
31122125	Corn oil, once-refined mil lb .....2002..	D	D
	.....1997..	N	N
31122127	Corn oil, fully-refined mil lb .....2002..	D	D
	.....1997..	N	N
31122309	Other crude oil mil lb .....2002..	D	D
	.....1997..	N	N
31122005	Other oil, fully-refined mil lb .....2002..	D	D
	.....1997..	N	N
00970099	All other materials and components, parts, containers, and supplies .....2002..	X	326 374
	.....1997..	X	891 437
00971000	Materials, ingredients, containers, and supplies, nsk .....2002..	X	883 501
	.....1997..	X	652 135

Note 1: For some establishments, data have been estimated from central unit values that are based on quantity-value relationships of reported data. The following symbols are used when percentage of each quantity figure estimated in this manner equals or exceeds 10 percent of published figure: p-10 to 19 percent estimated; q-20 to 29 percent estimated. If 30 percent or more is estimated, figure is replaced by S.

Note 2: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.